TABLE B.4.15.1–4.—*Site 300 Hazardous Chemicals Quantities by Location in FY2002*

Material	Maximum/ Average Quantity[a]	Location
Acetone	400/30 gal	827, 801, 812, 826, 836, 850, 851, 874, T8010, 875, 899
Acetylene	10,000/7,500 ft^3	801, 876, 873, 874, 875, 879, T8340, 811, 843
Activated Carbon	20,000/15,000 lb	827, 843, 834
Air	28,000/15,000 ft^3	801, 802, 812, 850, 851, 843, 875, 834, T8340
Alcoa Atomized Powder	3,000/2,000 lb	827, 805, 827, 872
Ammonium Perchlorate	760/760 lb	827
Argon	30,000/30,000 ft^3	801, 850, 851, 873, 874, 875, 876, 827
Asphalt Emulsion	300/200 gal	819, 843, 873
Auto Transmission Fluid (including Dextron)	400/300 gal	875, 876, 879
Bacticide Solution	220/110 gal	875
n-Butyl Acetate	55/55 gal	827, 810
Calla Soap	165/55 gal	875
Carbon Dioxide	44,000/5,000 ft^3	834, 843, 874, 875, 879
Cast Iron, Shot (Chips)	6,000/6,000 lb	843
Chlorine	2,250/1,500 lb	812, 844, 847, 853, 886, 888, Well Nos. 18 & 20, Tank boosters
Cleaner, Degreaser, Big Orange	110/55 gal	873, 874, 875, 880, 851
Cleaner, Butcher's Hot Springs	55/55 gal	875
Cleaner, Degreaser, Clean-Way II	110/55 gal	879
Cleaner, Degreaser, Ozzy Juice SW-3	330/110 gal	875, 879
Coating, Acrylic Terpolymer	244/90 gal	843
Coating, Polytherm, FP-576	220/110 gal	873
Coating, Polyurethane, Vulkem 350, Gray	60/60 gal	872
Coating, Polyurethane, Vulkem 351, Gray	110/55 gal	843, 872
Coating, Roof, Acrylic	2,500/500 gal	872, 819, 843, 873
Condensate wastewater	4,500/3,600 gal	875
Cyanuric Acid	500/50 lb	827D Yard
Diesel	12,000/10,000 gal	871, 875, 879, and 882 underground tanks; 805, 810, 827, 834, 836, and 870 aboveground tanks.
Dimethyl Sulfoxide	400/55 gal	827D Yard, 821
2,2-Dinitropropanol in EDC	275/275 gal	821
Ethyl Acetate	100/30 gal	827, 810, 873
Ethyl Alcohol	56/56 gal	801, 802, 806, 810, 812, 817, 823, 825, 827, 850, 851, 872, 874
Ethylene Glycol	200/100 gal	801, 802, 805, 809, 823, 827, 836, 843, 875, 879, 896

TABLE B.4.15.1–4.—*Site 300 Hazardous Chemicals Quantities by Location in FY2002 (continued)*

Material	Maximum/ Average Quantity[a]	Location
FEFO SOL (in methylene chloride)	1,100/10 gal	821
Floor wax	165/110 gal	873
Freon 12	660/220 lb	875, 801, 879
Freon 13	478/478 ft^3	834
Freon 22	1,400/870 lb	851, 875
Freon 113 (Freon, TF)	150/110 gal	875, 801, 806, 817, 823, 836, 850
Gasoline	15,000/15,000 gal	879
Glycerine	165/165 gal	817, 810, 875
Helium	25,000/25,000 ft^3	801, 802, 812, 848, 851, 873, 874, 882, 834, 850, 843, 865, 875
n-Hexane	220/220 gal	827D
High Explosives	100,000/10,000 lb	locations site-wide
Hydrogen	700/700 ft^3	843, 875
Isoamyl alcohol	55/55 gal	827D
Isopropyl Alcohol	300/100 gal	801, 806, 810, 817, 834, 836, 850, 858, 873, 874, 827E, 805, 827D
Kerosene	160/5 gal	875
Krovar I DF Herbicide	2,000/500 lb	819
Lacquer Thinner	110/35 gal	T8010, 843, 872, 873
Lead (bricks, ingots)	25,000/5,000 lb	801, 802, 803, 812, 825, 826, 827, 845, 850, 851, 879, 869
Lubricant, Synthetic Summit/Vactra, etc.	330/165 gal	836, 805, 875
Methane	3,000/1,500 ft^3	801, 851, 843, 833
Methyl alcohol	90/5 gal	801, 805, 827, 850, 851, 812
Methyl Ethyl Ketone	100/5 gal	827, 843
Mixed Gas, Freon 502	500/200 ft^3	834
Mixed Gas, Freon 503	500/200 ft^3	869
Mixed Gas, Compressed, Not Otherwise Specified (non-hazardous)	1,000/1,000 ft^3	834
Mixed gas, TCE/Nitrogen	7,400/50 ft^3	843
Nalco-71-D5	165/55 gal	875
Nalco-2508	110/55 gal	875
Nalco-2536	55/55 gal	875
Nalco-2593	55/55 gal	869
Nalco-2802	110/55 gal	875
Nalco-2833	55/55 gal	875
Nalco-2858	200/55 gal	827, 875

TABLE B.4.15.1–4.—*Site 300 Hazardous Chemicals Quantities by Location in FY2002 (continued)*

Material	Maximum/ Average Quantity[a]	Location
Nalco-2896	450/250 gal	875
Nitrogen	312,000/280,000 ft^3	801, 819, 836, 850, 851, 854, and misc. site locations
Nitroplasticizer	175/110 gal	821, 827
N-Octane	55/55 gal	827
Oil, Crankcase, 76 Guardol QLT 30	220/55 gal	875
Oil, Hydraulic (DTE, Unocal, CITGO, 76 UNAX AW32)	1,400/700 gal	801, 810, 873, 805, 836, 875
Oil, Inhibited Insulating	25,000/5,000 gal	801, 802
Oil, Mineral	220/55 gal	805, 817, 827
Oil, Motor (all weights)	650/400 gal	875, 879, and misc. site locations
Oil, Shell Oil Tellus 23	110/55 gal	834
Oil, Transformer, Shell Diala-AX/Equivalent	15,000/15,000 gal	801, 846, 865, 874, 836, 851
Oil, Turbine (Extra Heavy, HD 92)	110/55 gal	875
Oil, Vacuum Pump	330/55 gal	875, 827, 851, 806
Oil, Vitrea 100	55/55 gal	875
Oil, Waste	1,000/110 gal	879, 875, 851, 805
Oxygen	16,000/5,000 ft^3	801, 843, 873, 874, 875, 876, 879, 811, T8340
Paint, acrylic (e.g., semi-gloss)	600/100 gal	872, 843, 873, and misc. locations site-wide
Paint, Street Markings	300/55 gal	805, 843, 872, 873, 875, and site-wide
Paint Spray Wastewater	1,200/600 gal	883
Petroleum ether	220/55 gal	801, 827
Photo wastes	400/110 gal	851
Polyol	120/55 gal	827
Propane	20,000/8,000 ft^3	845, 801, and 879 aboveground tanks; also at 841, 851, 873, 874, 875
Roundup herbicide	100/90 gal	819
Sodium bicarbonate	550/40 lb	812, 827, 873, 858
Sodium chloride	7,400/100 lb	805, 817, 827
Sodium hypochlorite/Purechlor Sanitizer/bleach	500/55 gal	875
Sodium nitrate	1,000/16 lb	827
Steam Cleaning Solution/Split Equipment Cleaner	3,000/400 gal	879; Equipment cleaner

TABLE B.4.15.1–4.—*Site 300 Hazardous Chemicals Quantities by Location in FY2002 (continued)*

Material	Maximum/ Average Quantity[a]	Location
STIK-IT Asphalt Base Seal	560/5 gal	843 and misc. locations site-wide
Stoddard solvent/paint thinner	200/60 gal	827, 843, 872, 873, 876, and misc. site locations
Sulfur hexafluoride	19,500/7,700 ft^3	801, 801, 812, 850, 851
Sulfuric Acid	845/60 lb	875

Source: LLNL 2002m.
Note: Some buildings are part of a complex and employ small ancillary storage facilities. The above list does not denote these facilities. Locations vary year to year. The listing of facilities is not intended to limit inventories. Physical space and administrative controls including safety documentation limit inventories. This table is provided to give the reader an understanding of the types of chemicals, general quantities, and variety of locations.
[a] Maximum/Average Quantity: Maximum is defined as a maximum quantity at one of the facilities in a given year. Average is defined as the average quantity found at multiple facilities.
ft^3 = cubic feet; gal = gallons; lb = pounds.

Table B.4.15.1–5.—*Hazardous Chemicals at Selected Waste Management Facilities*

Facility	Materials[a]	Chemical Hazard Classification
DWTF	Sulfuric acid – 2,786 kg Sodium hydroxide (50% solution) – 1,737 kg Hydrogen peroxide (50% solution) – 1,665 kg Ferric sulfate (50% solution) – 1,709 kg Granulated activated carbon – unlimited Chloroform – 67.7 lb Hydrogen peroxide – 39.3 lb Perchloric acid – 35 lb Carbon disulfide – 34.9 lb Other chemical reagents – minor quantities	Low hazard
RHWM (Rollup)	Acetone – 30,400 lb Styrene – 23,000 lb Petroleum oils – 19,270 lb Methanol – 3,383 lb Other chemical reagents – minor to large quantities	Low hazard

Source: LLNL 1999j, LLNL 2000t, LLNL 2003s.
Note: This table is provided to give the reader an understanding of the types of chemicals and general quantities.
[a] All wastes have been removed prior to the expected closure.
kg = kilograms; lb = pounds.

B.4.15.2 *Waste Management*

This section describes the waste generation at LLNL. For a discussion of the regulatory setting, waste management practices, and treatment/storage facilities at LLNL, see Section B.1. The waste generation rates (CY1993 to FY2002) presented in this section represent actual data based upon DOE records.

The waste categories routinely generated onsite under normal operations include radioactive waste (including LLW, MLLW, and TRU); hazardous waste, which includes RCRA hazardous (chemical and explosives) waste, California toxic waste, TSCA waste (primarily asbestos and PCBs), and biohazardous (medical) waste; and nonhazardous solid waste and process wastewater. Additionally, LLNL generates nonroutine wastes and expects to generate wastes